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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,942	04/16/2001	Takashi Shoji	Q61182	5374

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EXAMINER

HANNAHER, CONSTANTINE

ART UNIT PAPER NUMBER

2878

DATE MAILED: 04/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/834,942

Applicant(s)

SHOJI, TAKASHI

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Aside from the issue that the flat plate-shaped substrate has not been established to have a read out surface, as addressed below, there is nothing that claim 9 can recite about the location or disposition of the ("flat plate-shaped") base plate which is not already a requirement of its placement on the side of the flat plate-shaped substrate that doesn't have a planar electrostatic recording material thereon.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe *support* of the flat plate-shaped base plate 6 by any portion of the top region. Instead, placement of the flat plate-shaped base plate 6 into the fitting member 7 along its bottom region supports element 6 vertically. This is a new matter rejection.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 purports to depend upon itself. The Examiner declines to speculate as to which claim it ought to depend upon. The claim omits the word "plate" in reciting an element.

Claim 8 purports to depend upon itself. The Examiner declines to speculate as to which claim it ought to depend upon. The claim omits the word "plate" in reciting an element.

Claim 9 recites the limitation "the read out surface of the flat plate-shaped substrate" in line 2. There is insufficient antecedent basis for this limitation in the claim. Independent claim 1 only establishes that the planar electrostatic recording material has a readout surface. Since the flat plate-shaped base plate *must* be separated from the planar electrostatic recording material by the flat plate-shaped substrate by the plain terms of independent claim 1, clause (iii), what it might mean for the ("flat plate-shaped") base plate to be disposed "towards" the only established read out surface is not clear. The Examiner declines to speculate as to the meaning of this claim.

As stated in *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962), a rejection under 35 USC 103 [now 35 USC 103(a)] should not be based on considerable speculation about the meaning of terms employed in a claim or assumptions that must be made as to the scope of the claims. See MPEP § 2173.06. Because the scope of claims 7-9 cannot be reliably ascertained, no further action on the merits will be made as to these claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the

subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 4, 5/4, 5/2, 3, 5/3, and 5/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fender *et al.* (US005300784A) in view of Tonami *et al.* (JP 8-306328 A).

With respect to independent claim 1, Fender *et al.* discloses an imaging apparatus (Fig. 1) comprising a planar electrostatic recording material **1** which records image information (of x rays from source **3** passing through object **2**) as an electrostatic latent image and which generates electric currents in accordance with the electrostatic latent image when a read-out surface of the planar electrostatic recording material is scanned with a reading electromagnetic wave **7** (column 6, lines 17-46), and a flat plate-shaped substrate **11** which supports the planar electrostatic recording material **1** from a side of the read-out surface, and which has permeability (transparent, column 6, line 48) with respect to the reading electromagnetic wave. Fender *et al.* illustrates the imaging apparatus schematically and offers no disclosure regarding support of the material **1** or the substrate **11**, but clearly they must be supported above the source **5** and mirror **6** at a reliable distance from electrode **4**. Tonami *et al.* shows that in an imaging apparatus (Fig. 2), a planar electrostatic recording material **23** and flat plate-shaped substrate **22** is followed by a flat plate-shaped base plate **21** for the purpose of enhancing the mechanical strength. In view of the enhanced mechanical strength through the use of a base plate as suggested by Tonami *et al.*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the imaging apparatus of Fender *et al.* to comprise a flat plate-shaped base plate for supporting the flat plate-shaped substrate **11** from a side opposite to the substrate surface with the recording material **1**. Higher rigidity and transparency is suggested the thicker glass plate of Tonami *et al.*

With respect to dependent claim 2, since the material for the base plate **21** and for the substrate **22** in the imaging apparatus of Tonami *et al.* is glass, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the imaging apparatus of Fender *et al.* to comprise a base plate as suggested by Tonami *et al.* for mechanical strength of the same material as substrate **11** such that the coefficient of thermal expansion was approximately the same to avoid any difficulty with stress or curling or cracking and the like.

With respect to dependent claim 4, since the material for the base plate **21** and for the substrate **22** in the imaging apparatus of Tonami *et al.* is glass, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the imaging apparatus of Fender *et al.* to comprise a base plate as suggested by Tonami *et al.* for mechanical strength of the same material as substrate **11** such that the refractive index was approximately the same to avoid any difficulty with reflections of the beam **7** at the interface between them.

With respect to dependent claims 5/4 and 5/2, Tonami *et al.* discloses that the surfaces of the base plate **21** and the substrate **22** which stand facing each other are adhered by an adhesive (bonding) agent **25**.

With respect to dependent claim 3, since the material for the base plate **21** and for the substrate **22** in the imaging apparatus of Tonami *et al.* is glass, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the imaging apparatus of Fender *et al.* to comprise a base plate as suggested by Tonami *et al.* for mechanical strength of the same material as substrate **11** such that the refractive index was approximately the same to avoid any difficulty with reflections of the beam **7** at the interface between them.

With respect to dependent claims 5/3 and 5/1, Tonami *et al.* discloses that the surfaces of the base plate **21** and the substrate **22** which stand facing each other are adhered by an adhesive (bonding) agent **25**.

8. Claims 6/4, 6/2, 6/3, and 6/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fender *et al.* (US005300784A) and Tonami *et al.* (JP 8-306328 A) as applied to claims 4, 2, 3, and 1 above, and further in view of Letter (US003556787A).

With respect to dependent claims 6/4, 6/2, 6/3, and 6/1, Fender *et al.* and Tonami *et al.* do not suggest the presence of an anti-reflection coating layer. Nevertheless, an imaging apparatus comprising a planar electrostatic recording material and a flat plate-shaped substrate which also comprises an anti-reflection coating layer for improvement of the optical characteristics is known from Letter (column 3, lines 55-59). In view of the improved optical characteristics described by Letter, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the imaging apparatus suggested by Fender *et al.* and Tonami *et al.* to further comprise the formation of an anti-reflection coating thereon. Formation on the light entry face of the base plate, where beam **7** would otherwise have an opportunity to reflect in view of the difference in refractive index between the air and the base plate **21** suggested by Tonami *et al.*, would not have taken more than ordinary skill in the art in view of the understood characteristics of such a coating layer.

Response to Submission(s)

9. The amendment filed February 26, 2003 has been entered. The amendment is in the acceptable Revised Format.

10. Applicant's arguments filed February 26, 2003 have been fully considered but they are not persuasive.

Applicant's representative states that "Tonami does not disclose a base plate for supporting a substrate from a side opposite to a surface of the substrate on which the electrostatic recording material is formed." Since this so plainly contradicts the disclosure of Fig. 2 of Tonami, in which base plate **21** supports a substrate **22** from a side opposite to a surface (occupied by electrode **26**) on which the electrostatic recording material **23** is formed, the argument cannot be understood.

Applicant's representative routinely resorts to a reference to MPEP § 2125 in an attempt to rebut arguments made on the basis of views in the applied references. The oversimplification of this section of the MPEP is not useful. As is apparent from an actual reading of the section, the specification must be completely silent on the issue of proportions and sizes before the arguments may be dismissed. Since Tonami is *not* silent on the issue of the proportions of the layers depicted in Fig. 2 therein, as element **22** is plainly described as a glass *thin* plate and element **21** as a glass plate, the thicker proportion of element **21** as compared to element **22** in Fig. 2 is properly relied upon. No speculation on the part of the Examiner is necessary.

In response to applicant's argument that the fluorescent material **24** in Tonami *et al.* would interfere with any readout in Fender *et al.*, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The addition of a thicker glass plate to the substrate supporting a recording material in Fender *et al.*, in the place suggested by Tonami *et al.* (that is, on the side of the substrate opposite the side with the recording material, exactly as recited in independent claim 1), would not give rise to the need which Tonami *et al.* is addressing by including element **24**. The radiation from source **3** in Fender *et al.* reaches the

recording material 1 without passage through the substrate 11 or any plate suggested by Tonami *et al.*, so there is no loss of image resolution from the presence of substrate 11 or any plate suggested by Tonami *et al.* One of ordinary skill in the art following the teachings of Tonami *et al.* and adding a glass plate to support the substrate 11 in Fender *et al.* for the enhanced mechanical strength would not be led to also include the fluorescent material 24.

The coefficient of thermal expansion and the index of refraction are well understood properties of materials. To propose, as would be necessary for the recitations of dependent claims to be not taught or suggested, an imaging apparatus in which these properties were different is to accord less than ordinary skill in the art.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Accordingly, any difference in the use of the structure disclosed by Letter is inadequate to dismiss its teachings. The proposition that a light flux is different from a light beam is not convincing.

For at least the reasons explained above, Applicant is not entitled to a favorable determination of patentability in view of the arguments submitted February 26, 2003.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the

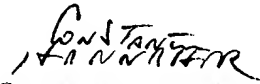
mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (703) 308-4850. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ch
March 31, 2003


Constantine Hannaher
Primary Examiner